



TENNESSEE DEPARTMENT OF

**EDUCATION**  
FIRST TO THE TOP

## Culinary Arts II

<b>Primary Career Cluster:</b>	Hospitality & Tourism
<b>Consultant:</b>	Deborah Thompson, (615)-532-2840, <a href="mailto:Deborah.Thompson@tn.gov">Deborah.Thompson@tn.gov</a>
<b>Course Code(s):</b>	5980
<b>Prerequisite(s):</b>	<i>Culinary Arts I</i> (5979)
<b>Credit:</b>	1
<b>Grade Level:</b>	10
<b>Graduation Requirements:</b>	This course satisfies one credit of three credits required for an elective focus when taken in conjunction with other Hospitality & Tourism courses.
<b>Programs of Study and Sequence:</b>	This is the second course in the <i>Culinary Arts</i> program of study.
<b>Aligned Student Organization(s):</b>	Family, Career and Community Leaders of America (FCCLA): <a href="http://www.tennesseefccla.org/">http://www.tennesseefccla.org/</a> SkillsUSA: <a href="http://tnskillsusa.com/">http://tnskillsusa.com/</a> Brandon Hudson, (615) 532-2804, <a href="mailto:Brandon.Hudson@tn.gov">Brandon.Hudson@tn.gov</a>
<b>Coordinating Work-Based Learning:</b>	Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit <a href="http://tn.gov/education/cte/work_based_learning.shtml">http://tn.gov/education/cte/work_based_learning.shtml</a> .
<b>Available Student Industry Certifications:</b>	ServSafe
<b>Dual Credit or Dual Enrollment Opportunities:</b>	There are no known dual credit/dual enrollment opportunities for this course. If interested in developing, reach out to a local postsecondary institution to establish an articulation agreement.
<b>Teacher Endorsement(s):</b>	(050 and 060), (050 and 453), (051 and 060), (051 and 453), (154 and 155), (450 and 060), (450 and 453), 562, 563, 564, 566, 730
<b>Required Teacher Certifications/Training:</b>	Serve-Safe, National Registry of Food Safety Professionals, or CCE Culinary Chef Educator Industry Certification
<b>Teacher Resources:</b>	<a href="http://www.tn.gov/education/cte/HospitalityTourism.shtml">http://www.tn.gov/education/cte/HospitalityTourism.shtml</a> .

### Course Description

*Culinary Arts II* is an applied-knowledge course to prepare students for careers in the culinary field as a personal chef, caterer, executive chef, and food and beverage manager. Upon completion of this course, proficient students will have an understating of commercial kitchen safety and sanitation, menu planning, food presentation, purchasing and inventory, preparation skills, cooking principles, and food

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preparation. Students will gain experience in commercial food production and service operations, while preparing for further training at the postsecondary level. Artifacts will be created for inclusion in a portfolio, which will continue throughout the full sequence of courses. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics.\* **In addition to implementing the following standards, the course should include a suggested 30 hours spent in a commercial kitchen laboratory.**

## Program of Study Application

This is the second course in the *Culinary Arts* program of study. For more information on the benefits and requirements of implementing this program in full, please visit the Hospitality & Tourism website: <http://www.tn.gov/education/cte/HospitalityTourism.shtml>.

## Course Standards

### Safety & Sanitation

- 1) Summarize the different ways that cross-contamination can occur in the kitchen, citing sources from the U.S. Department of Health and Human Services or other federal guidelines. Write a script and create a video or public service announcement explaining how to prevent cross-contamination in the kitchen. (TN Reading 1, 6; TN Writing 6)
- 2) Identify the steps for sanitizing food-contact surfaces in the kitchen, citing evidence from textbooks, regulations, or similar collections of best practices. Compare and contrast the different types of sanitizing (i.e., heat and chemical) and distinguish when each type should be used. In small groups, inspect the classroom kitchen using the Food Service Establishment Inspection Report from the Tennessee Department of Health. (TN Reading 3, 9)
- 3) Compile, practice, and critique safety and sanitation procedures related to handling, preparing, storing, and serving food from industry-approved technical manuals and government published fact sheets. Identify, review, and demonstrate common laboratory safety procedures, including but not limited to prevention and control procedures and personal hygiene expectations. Incorporate safety procedures and complete safety test with 100 percent accuracy; include exam in the student portfolio. (TN Reading 3)

### Menu Planning

- 4) Compare and contrast the main types of menus (market menu, a la carte, static menu, cycle menu, and table d'hôte) and synthesize basic planning principles for a variety of different restaurant menus. Apply menu planning principles to create a menu for an assigned concept, following recommendations in state truth-in-menu guidelines, or in the Nutrition Labeling and Education Act (NLEA). Incorporate appropriate service style, cuisine, and atmosphere when crafting the menu. In small groups, review the menu of peers to strengthen their overall quality through revising and editing. (TN Reading 2, 9; TN Writing 4, 5)
- 5) Analyze the elements that affect food cost and labor cost in foodservice operations, citing examples from real companies. Demonstrate working knowledge of costing a recipe and

predicting labor cost percentages. Craft an explanatory text illustrating the impact of such costs. Formulas include:

- a. Calculating Per Pound Unit Cost ( $\text{Price per Case} \div \text{Number of pounds in case} = \text{Per Pound}$ )
  - b. Calculating Per Ounce Unit Cost ( $\text{Price per Pound} \div 16 \text{ ounces} = \text{Cost per Ounce}$ )
  - c. Calculating Per Piece Unit Cost ( $\text{Cost} \div \text{Number of Pieces} = \text{Cost per Piece}$ )
  - d. Calculating Total Cost ( $\text{Number of Units} \times \text{Unit Price} = \text{Total Cost}$ )
  - e. Calculating Edible Portion (EP) Price ( $\text{As Purchased [AP] Cost} \div \text{Yield Percentage} = \text{Edible Portion [EP] Price}$ )
  - f. Calculating Yield Percentage ( $\text{Edible Portion [EP]} \div \text{As Purchased [AP]} \times 100 = \text{Yield Percentage}$ )
  - g. Calculating Labor Cost ( $\text{Labor Cost} \div \text{Food Sales} = \text{Labor Cost Percentage}$ )
- (TN Reading 1, 7; TN Writing 2, 4; TN Math N-Q)

- 6) Evaluate the different methods and formulas (going rate, prix fixe, markup, and food cost percentage) that foodservice operations use to calculate the price of dishes. Select the correct formulas to calculate the menu price for an assigned dish. Formulas include but are not limited to:
- a. Markup ( $\text{Food Cost} + \text{Markup} = \text{Menu Price}$ )
  - b. Food Cost Percentage ( $\text{Food Cost per Portion} \div \text{Standard Food Cost Percentage} = \text{Menu Price}$ )
- (TN Math N-Q)

### **Presentation**

- 7) Research and describe the plating principles that guide platter and buffet presentation, including color, height, focal point, temperature, and proportion. Apply plating principles throughout the course to design attractive platter and plate presentations. (TN Reading 1; TN Math N-Q)
- 8) From recipe research, create a list of commonly used edible garnishes. Create a cheat sheet of principles to remember when deciding which garnish should accompany a given dish. Examples of principles include dish temperature, functional appearance, and using garnishes sparingly. (TN Reading 1; TN Writing 7)

### **Purchasing, Receiving, and Inventory & Storage**

- 9) List the factors (i.e., environmental, economic, social, and/or government regulations) that influence food prices and quality, drawing on diverse resources and perspectives including recent news media. Research the purchasing methods (i.e., bids, purchase orders, requisition, and sales quotes) that foodservice operations use to order supplies. Craft an explanatory text outlining the pros and cons of each, analyzing how such methods are used to manage food costs. (TN Reading 2, 8; TN Writing 2, 9)
- 10) Summarize the requirements for proper receiving and storage of food products from the U.S. Department of Agriculture and other culinary resources. Develop a brief manual on proper procedures for receiving and storage of food products, including both raw and prepared foods,

justifying recommendations specific to temperature and product rotation. (TN Reading 1, 3, 5; TN Writing 4, 6, 8)

- 11) Investigate technology advances in foodservice management softwares, including inventory databases and employee time keeping systems. Create a basic inventory system for easy reference of par stock, recipes, ordering, and receiving of items; employ consistent documentation procedures using purchase orders and related templates. (TN Reading 2, 6; TN Writing 6)

### **Preparation Skills**

- 12) Compare and contrast the size and shape of different cuts used in commercial kitchens. Practice performing different cuts using the correct steps corresponding to each. Cuts include but are not limited to:
  - a. Brunosie
  - b. Chiffonade
  - c. Dice
  - d. Julienne
  - e. Mince
  - f. Rondelle

Either record a video or take a picture to demonstrate mastery of techniques to place in the student portfolio. Execute proper safety and cutting techniques when using knives in the lab. (TN Reading 3)

### **Cooking Principles**

- 13) Define the three classifications of cooking methods (combination, dry, and moist), citing an example of each. Discuss how heat is transferred by conduction, convection, and radiation, incorporating evidence from kitchen equipment manuals or textbooks. Compare the uses of these techniques in the kitchen laboratory to their explanations in texts. (TN Reading 2, 5, 9)
- 14) Select three pieces of a food (i.e., a piece of chicken, apple, or potato). Form a hypothesis regarding what happens when that food is overcooked or undercooked using a certain cooking method. Conduct an experiment to test the hypothesis. Report results in an explanatory text outlining the physical change in appearance, flavor, texture, weight, and moisture of the food. (TN Reading 3, 9; TN Writing 2)

### **Food Preparation**

For each of the following food types, prepare a “cheat sheet” to include as part of a food preparation index in the student portfolio. The index will address forms, preparation methods, classification and grading processes, receiving and storage practices, and a sample standardized recipe and photograph of the prepared dish. For each entry, draw on relevant culinary research and guidelines from regulatory agencies and organizations to support information included in the index.

#### *Fruits*

- 15) Research the classification of fruits and cite an example of a fruit from each classification commonly used in commercial foodservice, including those often mistaken as vegetables.

Referring to research from the U.S. Department of Agriculture (USDA), categorize the grades that fruit may be purchased in, note its primary growing season, and explain the different forms available to consumers. (TN Reading 1, 4; TN Writing 9)

- 16) From recipes, summarize the steps to prepare and/or cook fruits when preparing dishes, displays, and garnishes. Draw on basic chemistry principles to explain the process of oxidation and the importance of acidulation when preparing certain fruit dishes. Select a fruit recipe and modify the recipe to incorporate fruits that are currently in season. (TN Reading 3, 7; TN Writing 4, 9)
- 17) Write a research paper or conduct a research project on a current culinary topic or issue affecting the foodservice industry, using appropriate digital search resources and academic writing. Topics may include but are not limited to:
- a. Organic fruits versus nonorganic fruits
  - b. Technologies for preserving fruits (canned, frozen, and dried)
  - c. Buying local
  - d. Traceability of produce (i.e., carbon footprint)
  - e. Acidulating fruits
- (TN Reading 2, 6; TN Writing 7)

### *Vegetables*

- 18) Distinguish among the most commonly used vegetables in commercial foodservice. For each vegetable examined, describe its anatomy and use based on information gathered in culinary textbooks. Evaluate the quality factors when selecting vegetables, including growing seasons and regions, available forms of purchase, and vegetable gradings, citing relevant research from government authorities where appropriate. Compile a collection of standardized recipes that demonstrates the diverse cooking methods employed in foodservice settings. (TN Reading 1, 4; TN Writing 6)
- 19) Summarize various moist-heat and dry-heat cooking methods from the collection of standardized recipes gathered in standard 18. Research the principles of vegetable cookery using culinary journals and magazines to identify the factors that affect the flavor, texture, color and retention of nutrients in cooked vegetables. Select the best cooking method for a chosen vegetable, justifying the selection based on the evidence. (TN Reading 1, 4; TN Writing 2, 9)
- 20) Form a hypothesis and design and conduct an experiment to determine the role of acid and alkaline solutions in a vegetable's color during the cooking process. Summarize experiment results into an argument making a claim about the impact of a selected solution ingredient on vegetable composition. Compare results to findings in news media and culinary journals, and note when findings support or contradict previous explanations or accounts. (TN Reading 3, 4, 9; TN Writing 1, 7, 9)

### *Stocks, Soups, & Sauces*

- 21) Research and summarize the roles of a variety of ingredients in the production of stocks (i.e., white stock, brown stock, broth/bouillon, vegetable stock, and fish stock). Compare the

characteristics of the stocks, cooking times, and ingredients' contributions to the flavor profile. Create a list of steps to execute when making stocks and bases. Demonstrate the skill of making stock and evaluating the quality of the finished product by following the multistep procedure created above. (TN Reading 1, 3, 4; TN Writing 2)

22) Compare and contrast the types of soups (i.e., clear soups, thick soups, and specialty soups). Follow and continually modify soup recipes to create a variety of soups for a given menu. Justify with the advantages and disadvantages of serving different types of soups for certain menus. (TN Reading 3)

23) Synthesize the characteristics of the mother sauces and derivative sauces. Justify from culinary textbooks and other sources how to choose a thickening agent when preparing different sauces, citing evidence from recipes. Create a recipe for a sauce and prepare the sauce. (TN Reading 2, 3, 5; TN Writing 4)

### *Starches*

24) Synthesize from culinary research the different types of starches used in commercial kitchens, including but not limited to potatoes, grains, corn, rice, and wheat. Identify how the starch content determines botanical differences among starches and influences how cooks select them for dishes. Compile a collection of standardized recipes that demonstrates the diversity of starches in foodservice settings. (TN Reading 1, 4)

25) Compare and contrast the differences in appearance, flavor, and texture of fresh pasta and dry pasta. Research a fresh pasta recipe from the Internet. Using the recipe, make modifications to create an original multistep recipe, demonstrating proper safety techniques throughout. (TN Reading 9; TN Writing 5)

### **The following artifacts will reside in the student's portfolio:**

- Safety and Sanitation assignment
- Sample menu
- Collection of recipes
- Receiving and storing manual
- Cooking principle results
- Cheat sheets
- Research papers
- Pictures of skills

## Standards Alignment Notes

\*References to other standards include:

- TN Reading: [Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects](#); Reading Standards for Literacy in Science and Technical Subjects 6-12; Grades 9-10 Students (page 62).
  - Note: While not directly aligned to one specific standard, students that are engaging in activities outlined above should be able to also demonstrate fluency in Standard 10 at the conclusion of the course.
- TN Writing: [Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects](#); Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12; Grades 9-10 Students (pages 64-66).
  - Note: While not directly aligned to one specific standard, students that are engaging in activities outlined above should be able to also demonstrate fluency in Standards 3 and 10 at the conclusion of the course.
- TN Math: [Tennessee State Standards for Mathematics](#); Math Standards for High School: Number and Quantity.
  - Note: The standards in this course are not meant to teach mathematical concepts. However, the concepts referenced above may provide teachers with opportunities to collaborate on lesson planning. Students who are engaging in activities listed above should be able to demonstrate quantitative reasoning as applied to specific technical concepts. In addition, students will have the opportunity to practice the habits of mind as described in the eight Standards for Mathematical Practice.
- P21: Partnership for 21st Century Skills [Framework for 21st Century Learning](#)
  - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.